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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,999	07/29/2003	Gerald E. Tornquist	H0004545	8550

7590 07/27/2005

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EXAMINER

NGUYEN, TRAN N

ART UNIT PAPER NUMBER

2834

DATE MAILED: 07/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

5m

Office Action Summary

Application No.

10/629,999

Applicant(s)

TORNQUIST ET AL.

Examiner

Tran N. Nguyen

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☐ Claim(s) 1,2,5,11,12,15 and 21 is/are rejected.
7) ☐ Claim(s) 3,4,6-10,13,14,16-20 and 22 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED OFFICE ACTION

Double Patenting

The non-statutory double patenting rejection, whether of the obviousness-type or non-obviousness-type, is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent. *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); and *In re Goodman*, 29 USPQ2d 2010 (Fed. Cir. 1993).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(b) and © may be used to overcome an actual or provisional rejection based on a non-statutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.78(d).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-2, 5, 11-12, 15 and 21 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims **1-19 of U.S. Patent 6791230** (hereafter, USP '230) in view of **Pop, Sr.** (US 5,554,900).

Claims 1-19 of USP'230 are similar to claims 1-2, 11-12, 15 and 21 of this application. Both the USP'230 and the present application claim a high speed generator comprising:

a stator;

and a rotor, wherein the rotor includes the following:

a shaft;

rotor core with first and a second pole, each pole having windings and is spaced apart from one another to form a region therebetween, i.e., interpole region; and,

and a coil support assembly for supporting the coils, i.e., the coil support is located in the interpole region.

The USP'230 substantially claims the same invention as claimed in the present application, except for the following: the rotor is formed of a plurality of laminations and an

Art Unit: 2834

interlamination disk disposed between at least two of the laminations and the coil support assembly is coupled to the interlamination disk.

Pop, Sr., however, teaches a rotor core having a plural core subsets (210) of laminations, wherein an interlamination disk (282) disposed between at least two of the laminations for providing mechanical support for the modular core. Those skilled in the art would understand that since Pop's teaching of the interlamination disk (282) providing support for the laminated magnetic core, it would have been obvious to an artisan to abut the coil support to the interlamination disk because, while the disk serving the same purpose of mechanically support for the coil support assembly, the coupling therebetween the coil support assembly and the interlamination disk, which is formed of non-magnetic material, via any fastening means such as bolts or screws, would not electrically or magnetically interfere with the magnetic characteristics of the rotor magnetic lamination and the windings.

Thus, it would have been obvious to one skilled in the art to modify the USP'230 patented invention by configuring the laminated pole core with interlamination disk disposed between at least two of the laminations, as taught by Pop, Sr., and couple the coil support assembly to the interlamination disk. Doing so would provide means to mechanically support the laminated magnetic core, and the coil support assembly without any electrically or magnetically interferes with the magnetic characteristics of the rotor magnetic lamination and the windings.

Allowable Subject Matter

Claims 3, 4, 6-10, 13-14, 16-20, and 22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Art Unit: 2834

Applicant's arguments filed 6/3/05 have been fully considered but they are not persuasive because of the following:

The applicant argues that with the specific features of the Tornquist's core and coil support, the Pop's interlaminated disks (280, 282) are not structurally configured for coupling to the Tornquist's coil support, even though the Pop's interlamination disk somewhat similar to the claimed lamination disks.

In response to this argument, the applicant's attention is drawn to the claimed language of the present application that simply recites *a rotor including at least a first and a second pole, each pole formed of at least a plurality of laminations and extending radially outwardly from the shaft, each pole spaced apart from one another to form an interpole region therebetween, an interlamination disk disposed between at least two of the laminations, and a coil support assembly positioned in the interpole region and coupled to the interlamination disk.*

These broadly claimed features are read in claim 1 of Tornquist (USP'230) as the rotor core having plurality of laminations with extending radially outwardly poles that spaced apart from one another to form an interpole region therebetween and a coil support assembly positioned therebetween the poles. *The Tornquist ref does not disclose the interlamination disk disposed between at least two of the laminations, and coupled to the coil support.* However, Pop (USP'900) does teach interlamination disks (280, 282) that are located respectively at both ends and between plural laminated core segments for enhancing the mechanical support of the core so that the rotor would, as a solid body, exhibit exceptional stiffness that can withhold the centrifugal force during operation. The Examiner's position is not to incorporate the exact size/shape configuration of the Pop's interlaminated disks to the Tornquist's rotor core, but

Art Unit: 2834

rather *applying the Pop's essential teaching of providing interlaminated disks for enhancing the rotor structural integrity* to provide interlamination disk in the Tornquist's rotor core for the same purpose. The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined *teachings* of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In this case, the Pop's important teaching of providing the interlamination disks between laminated core segments and even at both ends of the core would provide enhance mechanical support for the core. Interlamination disks are well known in the art as part of segment-laminated core (see cited refs for detail). Furthermore, just for the sake of argument, one skilled in the art would have simply incorporate the exact size and shape of the Pops' interlaminated disk into the Tornquist's rotor core because obviously the size and shape of the rotor cores are different. Of course, an artisan would have the necessary mechanical skills to configure the interlamination disks, as taught by Pop, with similar shape of the lamination plates of the laminated core segments in order to form a unity rotor core structure with proper fitting of the coil support assembly thereto.

Thus, the applicant's argument is not persuasive. The rejection is proper and hereby unchanged.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**

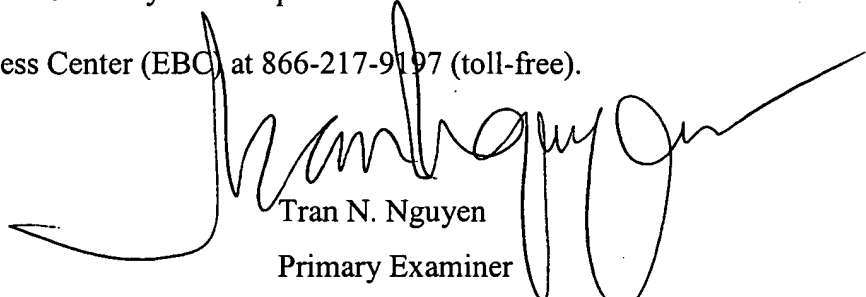
Art Unit: 2834

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tran N. Nguyen whose telephone number is (571) 272-2030. The examiner can normally be reached on M-F 7:00AM-4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571)-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tran N. Nguyen
Primary Examiner
Art Unit 2834